



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,541	01/02/2002	Lawrence A. Clevenger	YOR9-2001-0508-US1	9395

28211 7590 11/25/2003

FREDERICK W. GIBB, III
MCGINN & GIBB, PLLC
2568-A RIVA ROAD
SUITE 304
ANNAPOLIS, MD 21401

EXAMINER

LUK, LAWRENCE W

ART UNIT	PAPER NUMBER
----------	--------------

2838

DATE MAILED: 11/25/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/039,541

Applicant(s)

CLEVENGER ET AL.

Examiner

Lawrence Luk

Art Unit

2838

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4,5,7,8,10-20 is/are rejected.
- 7) ☒ Claim(s) 3,6 and 9 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 February 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____ 6) ☐ Other: ____

DETAILED ACTION

1. The indicated allowability of claims 1-6 and 11-20 are withdrawn in view of the newly discovered reference(s) to Galli (5,882,106) and Nakayama (5,119,269).

Rejections based on the newly cited reference(s) follow.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 5, 11 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Galli (5,882,106).

As to claims 1 and 2, Galli discloses in Figure 3 and col.8, line 65 to col.9, line 23, at least one battery 106; at least one integrated circuit chip 104 (see Figure 7) powered by the at least one battery 106; and a package 108 having a pair (e.g., 164,166; or 148,150; or 152,154; or circular recess 168, etc.) of opposed upright ends, wherein the package 108 is connected to any of the at least one battery and the at least one integrated chip; in particular, Galli discloses in Figure 3 and column 5, lines 23+ the battery 106 connected in the rear portion 158 of the package 108.

As to claim 5, Galli discloses in Figure 3 at least one battery 106; at least one integrated circuit chip 104 powered by the at least one battery-, and a package 108 connected to any of the at least one battery and the at least one integrated circuit chip,

Art Unit: 2838

wherein the at least one battery 106 connects to a pair of opposed upright ends (circular recess 106) of the package 108.

As to claim 11, Galli discloses in Figures 3 and 7 an integrated chip structure, comprising an integrated circuit chip 220; a battery 106 directly connected to the integrated circuit chip; and a package 108 having a pair (e.g. 164,166; or 148,150; or 152,154; or circular recess 168, etc.) of opposed upright ends, wherein the package 108 is connected to any of the battery and the integrated chip.

As to claim 14, Galli discloses in Figure 3 a package 108 which completely surrounds the battery 106 and the integrated circuit chip 104 (see Figure 7).

4. Claims 1, 4, 16-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakayama (5,119,269).

As to claim 1, Nakayama disclose in figure 2 and 4, at least one battery (20, 20a); at least one integrated circuit chip (10) powered by the at least one battery (20, 20a); and a package (11) having a pair of opposed upright ends (17, 18), the package connected to any of the at least one battery (20, 20a) and the at least one integrated circuit chip (10).

As to claim 4, Nakayama disclose in figure 2, at least one battery (20, 20a) connects to an underside of the package (11).

As to claim 16, Nakayama disclose in figure 2 and 4, a package having a pair of opposed upright ends (17, 18); an integrated circuit chip (10) mounted on said package

Art Unit: 2838

(11); and a battery (20, 20a) directly connected to said package and electrically connected to said integrated circuit chip (10).

As to claim 17, Nakayama disclose in figure 2, the battery (20, 20a) held adjacent to the integrated circuit chip (10) by the package (11).

As to claim 18, Nakayama disclose in figure 2, the package (11) is between the battery (20, 20a) and the integrated circuit chip (10).

As to claim 19, Nakayama disclose in figure 2, the battery (20, 20a) directly connected to the package (11) and electrically connected (12, 13) to the integrated circuit chip (10).

As to claim 20, Nakayama disclose in figure 2, the battery comprises multiple batteries (20, 20a) stacked on the package (11).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 7, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galli (5,882,106) in combination with Marholev et al. (6,085,342).

As to claims 7, 8 and 10, as described above, Galli discloses the elements as claimed except for a multi-chip module.

Art Unit: 2838

Marholev et al. disclose a multi-chip system in col.2, lines 46-51 for performing a number of functionalities.

It would have been obvious to person having ordinary skill in the art at the time of the invention was made to modify the device of Galli to include a multi-chip system as taught by Marholev et al. so that the device can perform multiple function.

7. Claims 12, 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Galli in view of Kazem-Goudarzi et al. (5,540,379).

As to claims 12, 13 and 15, Galli does not disclose the solder connections between the battery and the integrated circuit chip. Kazem-Goudarzi et al. disclose in column 2, lines 44-47, that soldering is used to form a bond between a component and the substrate. It would have been obvious to one having ordinary skill in the art at the time of the invention was made to use solder connections as taught by Kazem-Goudarzi et al. in Galli's circuit in order to bond the battery to the chip.

Allowable Subject Matter

8. Claims 3, 6 and 9 are objected to as being dependent upon a rejected base claim.

In re claims 3, 6 and 9, the prior art of record fails to teach or reasonably suggest a system level device has at least one battery overhanging at least one integrated circuit chip, wherein the battery is larger than the chip.

Art Unit: 2838

Claims 3, 6 and 9 would be allowable if rewritten in independent from including all of the limitations of the base claim.


Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lawrence Luk whose telephone number is (703)305-0617. The examiner can normally be reached on 7 a.m. to 5 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Sherry can be reached on (703) 308-1680. The fax phone numbers for the organization where this application or proceeding is assigned are (703)305-7724 for regular communications and (703)305-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-1782.

LWL
Oct 27, 2003


11/14/03
MICHAEL SHERRY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800